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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* HIROYASU KARIMOTO, YUSHI OGINO,  
and HIDEYUKI HAGIWARA

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Appeal 2007-3943  
Application 09/869,647  
Technology Center 2100

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Decided: May 14, 2008

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Before JAMES D. THOMAS, JOSEPH L. DIXON, and  
LANCE LEONARD BARRY, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 through 32. We have jurisdiction under 35 U.S.C. § 6(b).

As best representative of the disclosed and claimed invention, independent claim 1 is reproduced below:

1. A creation production support method comprising the steps of:
  - storing, in a database, elements of a creation along with added corresponding element indexes;
  - extracting, from said database, element indexes for multiple creation elements that match a selection reference;
  - calculating a correlation among information sets written in said extracted element indexes, and obtaining a set of element indexes from said extracted element indexes whose correlation satisfies an evaluation reference; and
  - linking creation elements corresponding to element indexes that belong in said set, and outputting the results as a new creation.

The following references are relied by the Examiner:

Kay	US 6,103,964	Aug. 15, 2000 (Filing date Jan. 28, 1999)
Mindrum	US 6,340,978 B1	Jan. 22, 2002 (Filing date Jan. 30, 1998)
Smith	US 6,694,311 B1	Feb. 17, 2004 (Filing date Jan. 24, 2000)
Arellano	US 6,694,482 B1	Feb. 17, 2004 (Filing date Sept. 10, 1999)

Claims 1 through 32 stand rejected under 35 U.S.C. § 103. As evidence of obviousness as to claims 1 through 3, 8 through 10, 15 through 21, and 23 through 32, the Examiner relies upon Mindrum in view of Arellano in a first stated rejection. To this initial combination of references, the Examiner adds Smith as to claims 4, 5, 11, and 12. Lastly, in a third

stated rejection, the Examiner relies upon Mindrum in view of Arellano, further in view of Kay, as to claims 6, 7, 13, 14, and 22.

Rather than repeat verbatim the positions of the Appellants and the Examiner, reference is made to the Brief and Reply Brief for the Appellants' positions, and to the Answer for the Examiner's positions.

#### OPINION

For the reasons set forth by the Examiner in the Answer, as amplified here, we sustain the rejection of claims 1 through 3, 6 through 10, 13 through 18, and 32, but reverse the rejections of claims 4, 5, 11, 12, and 19 through 31. Additionally, we introduce new grounds of rejections of our own as to certain claims through the provisions of 37 C.F.R. § 41.50(b).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

The Supreme Court reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S. Ct. at 1739. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740. The Court noted that “[c]ommon sense teaches . . . that familiar items may

have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 1742.

The Federal Circuit recently concluded that it would have been obvious to combine (1) a device for actuating a phonograph to play back sounds associated with a letter in a word on a puzzle piece with (2) a processor-driven device capable of playing the sound associated with a first letter of a word in a book. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007). In reaching that conclusion, the Federal Circuit recognized that “[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.” *Id.* at 1161 (citing *KSR*, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was “uniquely challenging or difficult for one of ordinary skill in the art” or “represented an unobvious step over the prior art.” *Id.* (citing *KSR*, 127 S. Ct. at 1740-41).

In the absence of separate arguments with respect to claims subject to the same rejection, those claims stand or fall with the claim for which an argument was made. *See In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2004).

According to Appellants’ grouping of claims at page 4 of the principal Brief on appeal, Appellants argue independent claims 1 and 8 collectively. It is noted that the claims included within the third stated rejection, that is,

claims 6, 7, 13, 14, and 22 are included within this grouping. No separate arguments are presented in the Brief and Reply Brief as to the third stated rejection.

We address first Appellants' urging that there is no motivation to combine Mindrum and Arellano at pages 11 and 12 of the principal Brief on Appeal. The above-noted case law does not require such a focused consideration as an expression of motivation for proper combinability of references within 35 U.S.C. § 103. The dynamic story telling system of Arellano conceptionally dovetails with the Mindrum system of a corresponding nature. Moreover, as it will be more apparent in the following discussion, the Examiner's reliance upon the dynamic updating and adaptation capabilities of Arellano modify and improve upon, within 35 U.S.C. § 103, the nature of these features already taught in Mindrum.

We do not agree with Appellants' basic urging beginning at page 9 of the principal Brief that Mindrum does not teach what it is cited for. No arguments are presented to us that the feature of storing within the subject matter of representative independent claim 1 on appeal is not taught in this reference. The focus of the arguments is upon the failure of this reference to teach the extracting and linking features.

We make reference to Mindrum's figure 5, 6, and 14 generally with additional general reference to figures 16 through 20. The graphical user interface shown in figure 5 is discussed generally at columns 6 through 8. Once the data has been entered into the database which may comprise the CD 95 and/or the online permanent storage 97 and periodic back up store UPS 98 in figure 6, the user is free to extract from this database, to the

extent broadly recited in representative independent 1 on appeal, element indexes for multiple creations of elements that match a selection reference, such as, initially, a date by the use of the slider 69 along the graphical life bar 68 in figure 5. As this slider 69 is moved relative to the bar 68, corresponding dates appear in the date object 67 in figure 5, where each of the recordings previously made may be associated with the individual in an indexed or referenced fashion based on this date. Note at least the indexing teachings at columns 6, lines 36 through 40. It is therefore apparent to the artisan within Mindrum alone that an indexing capability associated with the database is a part of this reference. Additionally, it is noted that indexing may be done by actuation of the automatic play button 71 as well as selectively indexing by the nature of the subject matter desired, such as pictures, documents, input sheets and audio/video clips which are respectively selectable by elements 74, 75, 76, and 77 in figure 5. The capability to automatically play from a beginning time sequence all time sequences associated with the life of the person in question by means of the auto play button and/or a selective date chosen by the user by the use of the slider 69 on the graphical life board 68 requires linking the creation elements already stored into a set or otherwise subset of data for outputting to the user.

Thus, it is apparent to us that the artisan would well appreciate that the storing, extracting and linking features of representative independent claim 1 on appeal are plainly taught in this reference notwithstanding Appellants' arguments to the contrary in the Brief and Reply Brief.

There are significant other teachings as well. With respect to the discussion of figure 5 beginning at column 6, it is noted at column 7, beginning at line 9 that if multiple recordings exist for a given type of recording, a selectable list of recordings will be displayed, so that the user may further select those in chronological order or other order. This permits an additional level of indexing. The first full paragraph at column 7 of Mindrum also indicates that the recording system in this reference manages the data according to the data requirements of the nature of the data to be recorded in various file structures/formats.

The corresponding discussions of figure 14 beginning at column 16, line 21, mirrors and therefore buttresses the teachings already identified. It is noted that the teaching at lines 42 through 45 indicates that by use of the life line 185 and selection mechanism 186 in figure 14, a given user may view various recordings relating to an individual based on a selective period of time irrespective of the nature or type of recording. The discussion at lines 51 through 54 indicates that the auto play capability permits automatic display of all recordings associated with an individual in time order. Based upon these capabilities in Mindrum the user would fully appreciate the ability to selectively output any type of creation, any one of which may be considered "new" to the user from a previous presentation based upon these variable optional outputs.

In a manner consistent with the Examiner's reliance upon the updating capability in Arellano, Mindrum also has significant teachings of updating and modifying the database as well. Although much of Mindrum is focused

upon the life story of an individual that is deceased, the family life story capability of this reference further includes a growing memory capability as discussed at column 4, lines 24 through 46. This option relates to the life story that may be updated, for example, annually for an individual such as a child. The paragraph bridging columns 7 and 8 contains additional teachings of this update capability. The same may be said of the discussion with respect to figure 6, beginning at column 14, line 5 and the significant modifying teachings at column 18, lines 7 through 9. In these respects, the teachings in Mindrum permit the on going creation of “new” creations with respect to any living individual.

The Examiner’s reliance upon the teachings at columns 9 and 10 of Mindrum is incomplete of the pertinent teachings that relate to the indexing and/or extracting capability of representative independent claim 1 on appeal. Contrary to the position taken at page 9 of the principal Brief on appeal, each date and/or each type of recoded information that may be selectively indexed may comprise plural, different creation elements to the extent claimed. The selection reference of the claims comprises the user’s ability to select for viewing by date and/or types of recorded information such as picture, documents, etc. It is the users rather than the production worker teachings in the reference, contrary to the arguments presented at page 10 of the principal Brief, that are more pertinent to the subject matter of claim 1 on appeal. Moreover, to the extent any updating and modifying data is to be put into the database by a production worker according to the updating teachings noted earlier, there is a new creation made as well. Based on our earlier analysis, we also do not agree with Appellants’ urging at page 3 of

the Reply Brief that the selection of viewing of a selective photograph does not constitute a new creation. It is noted that no actual creation is required by representative independent claim 1 on appeal. Even so, the updating capability we outlined earlier relates to a creation process in addition to the initial creation process as well.

From our study of Mindrum, it appears to us that the artisan would well appreciate that the calculating requirement of representative independent claim 1 on appeal is taught as well. To have been able to access information according to a database structure within the teachings of this reference, correlations must be made among storage locations where different types and formats of data are stored such that the artisan would well appreciate that various calculations of corresponding addresses must be implicit within the teachings for data retrieval capability to exist within Mindrum. A given evaluation reference may be satisfied by the operability to select based upon the type recorded information, such as pictures, documents, etc. or all types of data that may be correlated for a given chosen date along the time line teachings of Mindrum. In these respects then, the teachings of Arellano as relied upon by the Examiner to teach the calculation features of independent claim 1 are merely cumulative to those the artisan would already well appreciate from Mindrum alone.

On the other hand, we do not sustain the Examiner's rejection of independent claims 19 and 31 essentially for the reasons set forth by Appellants beginning at page 12 of the principal Brief on Appeal. These arguments focus upon the lengthy agitation means clause of independent claims 19 and 31. The Examiner's position in the statement of the rejection

as to claim 19 at page 6 of the Answer does not appear to address this feature at all. The same may be said of independent claim 31 as briefly mentioned at page 7 of the Answer. Moreover, the Examiner does not directly address the agitation clause requirements of independent claims 19 and 31 in the responsive arguments at page 12 of the Answer. The mere asserted execution of a computer algorithm does not meet the significant agitation clause features of these independent claims.

Because Appellants have shown error with respect to the Examiner's positions as to independent claims 19 and 31 on appeal, we reverse the rejection of them as well as dependent claims 20 through 30.

We turn now to the subject matter of the second stated rejection where the Examiner further relies upon Smith with Mindrum and Arellano as to the features of dependent claims 4, 5, 11, and 12. Corresponding features are recited in dependent claims 4 and 11 as are in claims 5 and 12.

Even if we agree with the Examiner's views that it would have been obvious within 35 U.S.C. § 103 to have combined the respective teachings of Mindrum and Arellano, further in view of Smith, as to claims 4, 5, 11, and 12, we do not agree with the Examiner's conclusion that the subject matter of claims 4, 5, 11, and 12 would have been met. Even though Smith may teach queries associated with multimedia databases using vector plotting as argued by the Examiner, we agree with Appellants' observations at page 18 of the principal Brief that Smith does not necessarily teach computing the similarity among target vectors. It appears to us the Smith reference merely computes the similarity of an issued query vector to each target vector of the given database as argued. Moreover, Smith appears to

be silent as to the required feature of correlating extracted element indexes being evaluated using an angle formed by any of the disclosed vectors. Correspondingly, we agree with Appellants' arguments at page 20 of the principal Brief that Smith fail to teach that the query system of Smith simulates extracted element indexes as pseudo points, that any pseudo points are scattered throughout a pseudo processing tank or that the correlation is obtained among the extracted element indexes in the manner required by dependent claims 5 and 12 on appeal.

Therefore, we reverse the second stated rejection of dependent claims 4, 5, 11, and 12.

#### NEW REJECTIONS WITHIN 37 CFR § 41.50(b)

We first reject claims 13, 14, and 32 as being directed to hybrid claims and therefore indefinite with 35 U.S.C. § 112, second paragraph. These claims all involves different statutory classes and are necessarily indefinite to the extent they recite more than one. Dependent claims 13 and 14 purport to set forth an apparatus environment but rely upon the claimed subject matter of method independent claim 1 on appeal. The storage medium claim 32 relates to an article of manufacture but relies for patentability upon the subject matter of method independent claim 7.

We also reject claims 1 through 14, 31, and 32 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Independent claims 1 and 31 recite methods but fail to recite a machine implemented method or otherwise require operation upon or alteration of physical things to a different state or thing. There is also no machine recited within independent claims 1 and 31 to perform the data transformation and operations required

by these claims. The steps of independent claims 1 and 31 may be performed by a human and relate to abstract, generic concepts operating upon mere data structures per se.

In summary, we have affirmed the Examiner's rejections of claims 1 through 3, 6 through 10, 13 through 18, and 32. On the other hand, we have reversed the rejections of claims 4, 5, 11, 12, and 19 through 31. We have also introduced new grounds of rejection as to claims 13, 14, and 32 under the second paragraph of 35 U.S.C. § 112 and of claims 1 through 14, 31, and 32 under 35 U.S.C. § 101.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the examiner . . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record . . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART  
37 CFR § 41.50(b)

pgc

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